



The effects of entrepreneurship on student entrepreneurial passion: A case from university for development studies Ghana.

Maxwell Anaba
School of management, Jiangsu university, China

Prof Li Wenyuan
School of management, Jiangsu university, China

Abstract

The purpose of this study was to determine the effect of entrepreneurship education on the entrepreneurial spirit of students, with the mediation role of the perceived feasibility and moderate effects on goal orientation. The nature of the study is cross-sectional data using quantitative methods via questionnaire. This study using stratified sampling techniques and data collected from 340 students in Ghana. Structural equation modeling was used to test the hypothesis. The results of this study revealed that entrepreneurship education has a positive and significant impact on the entrepreneurial passion. Perceived feasibility has positive and significant effect on entrepreneurial education and entrepreneurial passion. In addition, the findings indicate that the perceived feasibility of having a partial mediating role between entrepreneurship education and entrepreneurial passion. In addition, research shows the moderating effect of high orientation in order to strengthen the relationship between entrepreneurship education and entrepreneurial passion.

Keywords; entrepreneurship education, entrepreneurial passion, perceived feasibility, goal orientation, Ghana

Introduction

Entrepreneurship has become a significant economic and social phenomenon as well as a widely explored subject around the world over the past few decades (Fayolle and Gailly 2008). As per research entrepreneurship is a deliberate and organized activity that can improve economic prosperity, introduce technology to markets, generate jobs and increase levels of employment (Shane and Venkataraman 2000). Many scientific studies suggest that entrepreneurship can be instructed, or at least certain aspects of it, and that learning can be considered one of the primary resources to promote entrepreneurial behaviors, desires, and competencies (Harris and Gibson 2008; Martin, McNally, and Kay 2013). Education for entrepreneurship generates more entrepreneurs who could also employ more people to reduce poverty and economic development (Adekiya and Ibrahim, 2016; Pedrini et al., 2017). Entrepreneurship learning is the transition of expertise to students in business development and management in order to arouse their interest in the formation of projects (DeTienne and Chandler, 2004).

Studies on entrepreneurship education are flourishing worldwide; creative innovations using technology have been largely underestimated and inspiring storytelling in this area. Although Lorz, Mueller & Volery's (2013) and Mason and Siqueira's (2014) analysis of entrepreneurship education literature has illustrated how the influence of different teaching and learning methods differs through research on entrepreneurship education, assessments of entrepreneurial education programs remain inconsistent (Bae, Qian, Miao & Fiet, 2014; Lorz, Mueller & Volery, 2013). Many such studies have shown the positive impact of EE courses (Fayolle, Gailly & Lassas-Clerc, 2006; Souitaris, Zerbinati & Al-Laham, 2007), but other researchers such as Oosterbeek, van Praag and Ijsselstein (2010) have highlighted their lack of significant impact. There is a need more research focusing on effective scholastic designs for this reason.

Passion for entrepreneurship encompasses the understanding of extreme positive emotions for activities that are integral to the individual's self-identity (Cardon et al., 2009). Passion is at the soul of entrepreneurship and can be a major driving force

of entrepreneurship (Cardon et al., 2005, 2013; Murnieks et al., 2014), which can be depicted by the disposition of entrepreneurship. The increasing complexity of research shows that enthusiasm is a crucial aspect of entrepreneurship and plays a vital role in the cycle of business development and its performance (Cardon et al. 2005; Huyghe, Knockaert, and Obschonka 2016). It's a 'strong' feeling or, metaphorically, the 'power of desire' that helps entrepreneurs cope with the challenges they face, transcend the setbacks and obstacles, make significant efforts to start a new company efficiently, and make the necessary efforts to accomplish their business (Cardon et al. 2005; Cardon and Kirk 2015). Studies have indicated that, in addition to other attributes such as the need for success (Rauch and Frese 2007; Karimi et al. 2017), entrepreneurial enthusiasm (EP) is a vital personal fueling for entrepreneurial activities (Cardon et al. 2009).

Moreover, there is no confirmation if the mediator feasibility seen in the link between education for entrepreneurship and passion for entrepreneurship actually held in Ghana, being as these requirements have been developed in different contexts. This is indeed the first study to the best of our ability that explores in an African context, the role of mediator perceived feasibility in the link between education for entrepreneurship and passion for the spirit business. Although very little research (Adekiya and Ibrahim, 2016, Gerba, 2012 ; Pedrini et al, 2017) studied the effects of entrepreneurship education on entrepreneurial passion in Ghana, on the basis of documents considered up to now, we have yet to find a study on the role of mediator in the feasibility perceived the relationship between education and the spirit of enterprise passion for entrepreneurship in Ghana.

This study contributes to the literature on entrepreneurship education and passion in several ways. First, we examine the role of entrepreneurial education with entrepreneurial passion. Second, we explain the relationship between entrepreneurial education and perceived feasibility. Third we discuss the mediation role of perceived feasibility between entrepreneurial education and entrepreneurial passion. Forth we elaborate the moderating effect of goal orientation with entrepreneurial education and entrepreneurial passion. Fifth we discuss the theoretical base with the help of TPB and in fifth we conclude the paper with methods, results, discussion, and limitation and future directions.

Literature Review and Hypotheses Development

Entrepreneurial Education

Earlier studies showed that training in entrepreneurship educates people the requisite behavioral characteristics that an entrepreneur requires to have to deal with grey areas and uncertainties in order to be successful (Pedrini et al. 2017; Neck and Greene, 2011). It includes combining psychological factors (expertise, skills, and perspectives) with energy-inspiring factors and influencing students' entrepreneurial zeal. Adversaries of the proposition for entrepreneurship education make the argument that entrepreneurs must have certain unique inborn characteristics that encourage entrepreneurship activities (Cope, 2005). Therefore, it may be necessary to promote entrepreneurial activities. For example, most entrepreneurial activities are conducted by individuals in sub-Saharan Africa without entrepreneurial education and/or a lot of formal education.

Entrepreneurial Passion

Vallerand et al. (2003) characterized passion as a powerful orientation toward an activity that people like, discover crucial, and in which they spend significant time and resources. Philippe et al. (2010) represented it merely as a strong desire to execute different activities. The current EP literature focused entirely on the entrepreneur (Cardon et al. 2009) and how the passion influences EI (Biraglia and Kadile 2017), entrepreneurial actions (Cardon and Kirk 2015), venture effectiveness (Mueller, Wolfe, and Syed 2017) and investor choices (Chen, Yao, and Kotha 2009), but only a few studies proposed that EP could also manipulate students' decision to create new ventures.

Perceived Feasibility

Perceived feasibility is correlated with the entrepreneurial self-efficacy that pertains to individual chooses to believe they have the energy (or skills) they need to take on the task effectively. There was also an association among self-efficacy and entrepreneurship. It is considered to be an important indicator of entrepreneurial purpose and enthusiasm for entrepreneurship (Ali, 2013; Miranda et al., 2017). Entrepreneurial self-efficacy is an essential therapeutic characteristic of the entrepreneurial cycle as individuals recognize the uncertainty conditions surrounding the business situation that require effort, patience and preparation (Bandura, 1997). Krueger and Dickson (1994) suggest that "high self-efficacy rates are correlated with tactical risk-taking." People with high self-efficacy tend to be more interested in entrepreneurial strategies and behaviors (Shane et al., 2003).

Hypotheses Development

Entrepreneurial Education and Entrepreneurial Passion

Young and Sexton (1997) figure out that researchers must concentrate on the aspects of social cognition, emotional cognition, and spiritualistic or ethical learning in entrepreneurship education. Social Cognitive Theory (SCT) (Bandura, 1986) stresses the improvement and evaluation of family friends, teachers, and (Martin et al., 2013). Entrepreneurship training, including previous experience employers may overlap with cognitive factors (self-efficacy) of the students and can help evaluate the objectives and actions (Ajzen, 1985) on your own. Based on the assumption of self-regulation, Cardon, Wincent, Singh and Drnovsek (2009) evaluated the entrepreneurial education and entrepreneurial passion to build the model, which means that once motivated, entrepreneurial spirit eventually led to the consequences of entrepreneurship. While the impulse and rationality is fundamentally at odds from the last point of view, scholars now recognize that consciousness and emotion can serve as a coherent system interconnected to work together towards the desired goal control the behavior (Pham and Avnet, 2004). Thus, we have reason to conclude that education in entrepreneurship can stimulate entrepreneurial enthusiasm through both cognitive and emotional paths; so the following hypotheses have been proposed;

Hypothesis 1: Entrepreneurial education positively and significantly associated to entrepreneurial passion.

Entrepreneurial Education and Perceived Feasibility

Perceived feasibility is the assumption that an individual is capable and deserving of succeeding in what he or she chooses or wants to accomplish (Bandura, 1997). Baron (2004) discusses self-efficacy as "trusting in one's ability to gather and incorporate the resources, skills and skills needed to achieve levels of achievement." Self-efficacy can be represented as their faith and belief in the capacity and ability to perform a prescribed task. There are different views on the development of self-efficacy. One school of thought says that self-efficacy and innate innate characteristic of an entrepreneur who cannot be discovered or developed through education (Cope, 2005), while others argued that education can develop and improve self-effectiveness. Rauch and Hulsink (2015) also demonstrated, including training in entrepreneurship increases regulatory measures is expected of students. Therefore, training in entrepreneurship can play a

crucial role in the growth of entrepreneurship students; self-efficacy. Therefore, we have proposed the following assumptions;

Hypothesis 2: Entrepreneurial education positively and significantly associated to perceived feasibility (self-efficacy).

Hypothesis 3: Perceived feasibility positively and significantly associated to entrepreneurial passion

Perceived feasibility mediates the relationship between entrepreneurial education and entrepreneurial passion.

Cardon et al. (2005) contrasted the process of launching a business with the known process of formation of children and suggested that we approach the process of entrepreneurship from an emotional point of view. After a course of setting up graduate, Donnellon et al. (2014) found that business training can help establish corporate identity in students; It develops entrepreneurial enthusiasm for having a strong identity for entrepreneurs (Murnieks and Mosakowski, 2006). the concept of self-regulation is also proposed; the essence of self-regulatory process is that human action and human response are synonymous with entrepreneurial thinking that takes into account the opportunities that lie between the person and the environment. Cardon et al. (2009) postulated a theoretical model based on the theory shed some light how and why entrepreneurial passion could coordinate business results. Passion in the business model, Cardon clarified that the entrepreneurial passion has an impact on the success of entrepreneurs across the prospects of finding and starting a new business.

Hypothesis 3: Perceived feasibility (Self-Efficacy) will mediates the relationship between entrepreneurial education and entrepreneurial passion.

Moderating effect of goal orientation between entrepreneurial education and perceived feasibility

Objective orientation refers to the strategies that individuals embrace in situations of accomplishment (Dweck, 1986; Nichols, 1984) or the psychological framework that assesses how individuals observe and respond to situations of achievement (Farr, Hofmann, & Ringenbach, 1993). Individuals tend to value goal orientations for either learning or performance. In relation to this direct connection, we suggest that self-efficacy moderates the positive relationship between learning goal orientation and entrepreneurial goals in those highly effective individuals that are more likely to advocate entrepreneurial goals than are low self-efficacy individuals. Given the

evolutionary answer patterns correlated with a prevalent learning goal orientation, we propose that features such as a tendency to follow challenging problems and continue in the face of failure combined with a strong conviction that one will succeed in such tasks may lead to a greater tendency to support goals that may be deemed more dangerous and less achievable, such as entrepreneurial goals.

Hypothesis 4: Goal orientation will moderate the relationship between entrepreneurial education and perceived feasibility (self-efficacy).

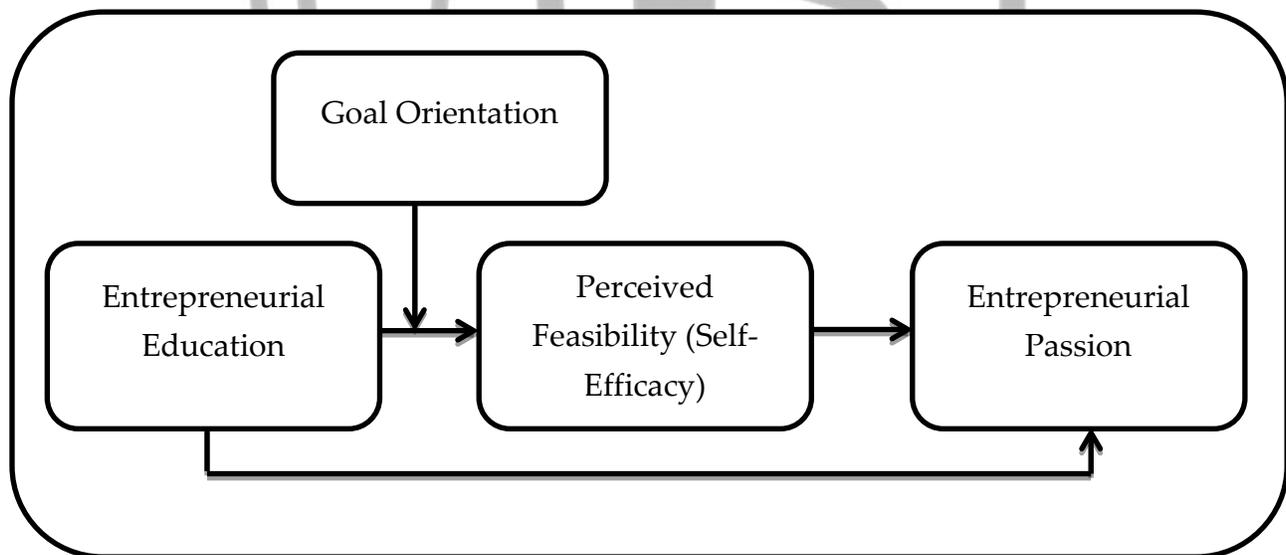


Figure 1. Proposed Research Model

Methods

Sample Size and Questionnaire Development

The aim of this study was to identify the effect of entrepreneurial education on entrepreneurial passion with mediating role of perceived feasibility. The study targets the students of Ghana who are enrolled in educational sectors. Data were collected from the undergraduate and graduate students who have studied entrepreneurship course. The reason to targets these students because they have good knowledge to create their own job as well as they are expert to start a new business. Furthermore, due to time constraints and limited resources we have taken sample from the one university because of wide discrepancies in the entrepreneurship courses among universities. The total strength of the student was 4045 students who studied entrepreneurial course in university. According to Krejcie and Morgan (1970) a population of 4000 to 3500 require a minimum sample size of 340 to 350 respectively. Therefore, we have sent 400 questionnaires to students using stratified sampling technique and finally 340 have received which was properly marked by the respondents. Some of questionnaires were discarded due to incomplete and missing filling. The following details are shown above table no 1.

Table 1. Demographic characteristics

Variable	Value	Percentage %
Gender	Male (173), Female (167),	Male (50.9%), Female (49.1%)
Age	Age (18-25 years, 221), (26-35 years, 119),	Age (18-25 years, 65.0%), (26-35 years, 35.0%),
Education	Undergraduate (216), Graduate (124),	Undergraduate (63.5%), Graduate (36.5%),
Departments	BBA (107), Accounting (62), Finance (72), MBA (60), Public Administration (39),	BBA (31.5%), Accounting (18.2%), Finance (21.2%), MBA (17.6%), Public Administration (11.5%),

Measures

The study has adopted measurement scales which were developed by previous researchers. We have used one independent variable entrepreneurial education scale with 10 constructs and adopted from the study of (Lorz 2011). Furthermore, we measured mediating variable perceived feasibility (self-efficacy) with the help of 5 measurement constructs which was adopted from the study of (Linan and Chen's 2009).

Moreover, we measured dependent variable entrepreneurial passion with 5 items and adopted the instrument from the study of (Cardon et al., 2013). At last we measured the goal orientation moderating variable with 6 item constructs and instrument was adopted from the study of VandeWalle's (1997). We measured all the scales using 5 point Likert scales ranging from 1 strongly disagree to 5 strongly agree.

Reliability and Validity Test

We have tested the reliability and validity test using Smart-PLS software version 3.0. We found that all the measurement constructs reliability Cronbach's Alpha was greater than 0.70. Validity test was also performed using Fornell- Larcker criterion and found that validity of the questionnaire was reliable and valid for further investigation. The table 2 shown the construct factor loading, Cronbach's alpha, composite reliability and average variance extracted.

Table 2. Factor loading and reliabilities

Constructs	Loading	Cronbach's Alpha	rho_A	CR	AVE
Entrepreneurial Education		0.918	0.954	0.924	0.553
EE 1	0.662				
EE 2	0.879				
EE 3	0.813				
EE 4	0.643				
EE 5	0.903				
EE 6	0.792				
EE 7	0.771				
EE 8	0.572				
EE 9	0.754				
EE 10	0.562				
Perceived Feasibility		0.829	0.880	0.878	0.593
PF1	0.719				
PF2	0.863				
PF3	0.843				

PF4	0.779				
PF5	0.620				
Entrepreneurial Passion		0.0.819	0.863	0.871	0.579
EP 1	0.706				
EP 2	0.842				
EP 3	0.849				
EP 4	0.800				
EP 5	0.573				
Goal Orientation		0.801	0.912	0.849	0.503
GO 1	0.284				
GO 2	0.773				
GO 3	0.859				
GO 4	0.809				
GO 5	0.687				
GO 6	0.689				

Table 3. Discriminant Validity

	EE	EP	GO	PF
EE	0.744			
EP	0.145	0.761		
GO	0.392	0.066	0.709	
PF	0.138	0.230	0.100	0.770

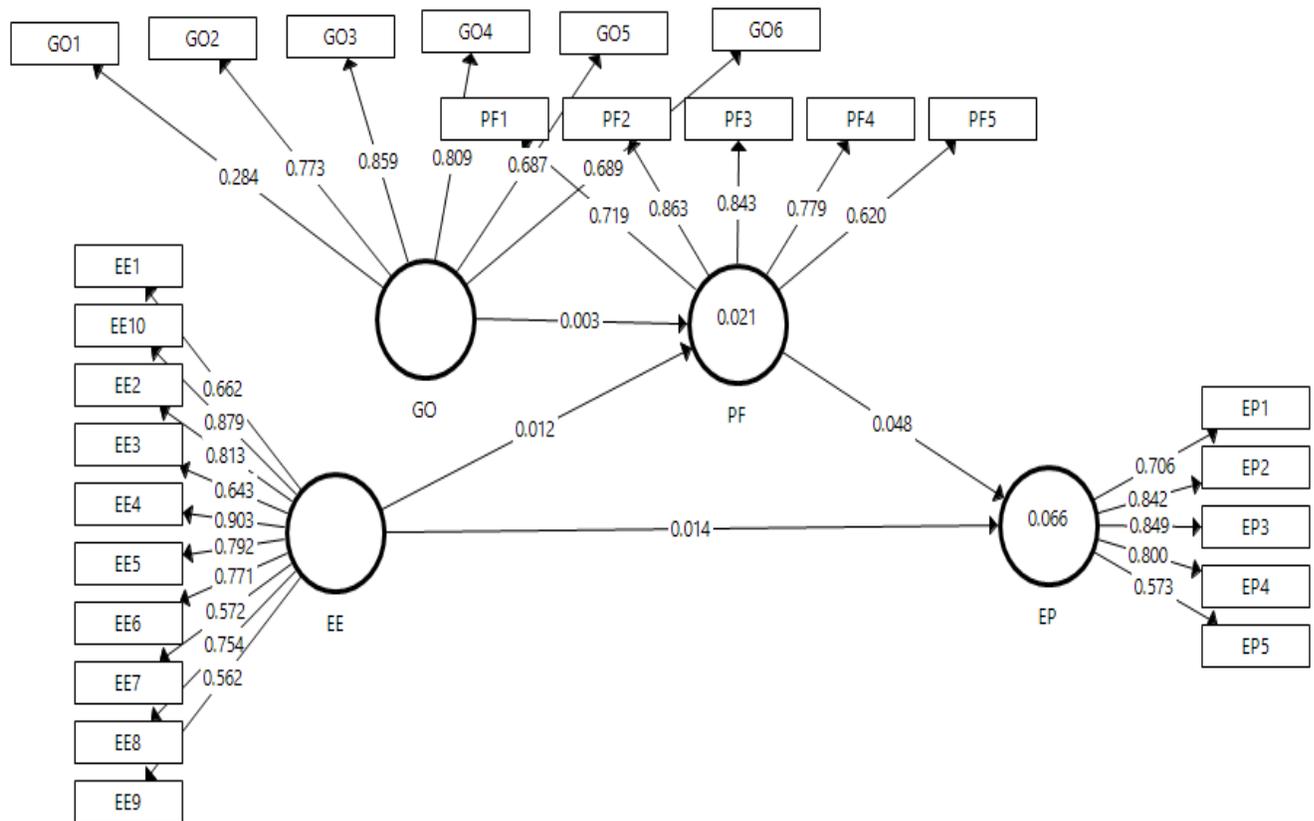


Figure 2. Factor Loading and f² test

Results

We have used SEM technique to analyze the results between proposed hypotheses.

Hypothesis Testing

Goal Orientation	EE with EP H1: ($\beta=0.180$; $t=2.473$) EE with PF H2: ($\beta=0.139$; $t=2.215$) PF with EP H3: ($\beta=0.381$; $t=3.747$) PF mediates EE with EP H4: ($\beta=0.130$; $t=2.210$) H5: Positive moderation effect
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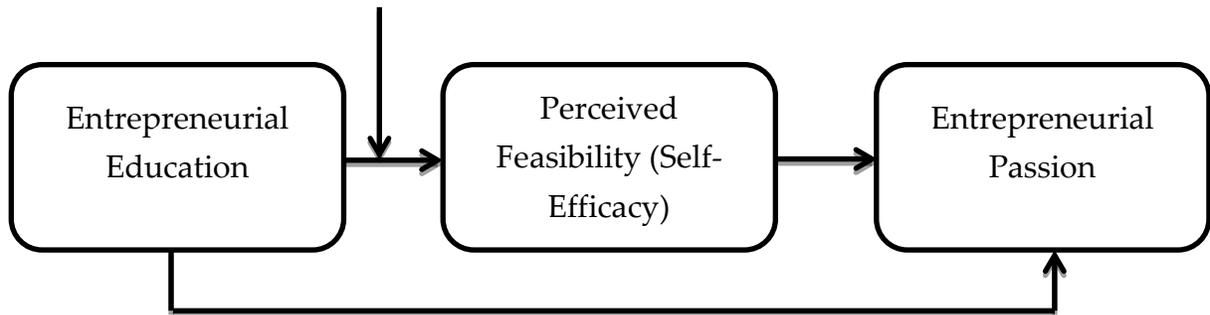


Figure 3. SEM Bootstrapping and t-values

Table 4. Direct Effect

Hypotheses	Relationship	β	R ²	Adjusted R ²	t- values	p- values	Decision
H1	EE → EP	0.180	0.066	0.060	2.473	0.000	Accepted
H2	EE → PF	0.139	0.021	0.016	2.215	0.000	Accepted
H3	PF → EP	0.216	0.381	0.379	3.747	0.000	Accepted

Table 5. Indirect Effect Mediation Analysis

Hypotheses	Relationship	β	t- values	p- values	Decision
H4	EE → PF → EP	0.130	2.210	0.000	Accepted

Table 3 depicts the path coefficient which predicted the entrepreneurial education and entrepreneurial passion: H1 results found that entrepreneurial education is positively and significantly associated with the entrepreneurial passion ($\beta=0.180$; $t=2.473$; $p=0.000$), thus, H1 is supported according to our findings. Moreover, H2 associated with entrepreneurial education and perceived feasibility. Our results revealed that entrepreneurial education is positively and significantly associated with perceived feasibility ($\beta=0.139$; $t=2.215$; $p=0.000$), thus H2 is supported to our model. Furthermore, we have proposed H3 on the relationship between perceived feasibility and entrepreneurial passion. Findings revealed that perceived feasibility has positive and significant impact on entrepreneurial passion ($\beta=0.381$; $t=3.747$; $p=0.000$), thus, H3 is verified. Therefore, we have predicted H4 perceived feasibility mediates the relationship entrepreneurial education and entrepreneurial passion. Our result shows that perceived feasibility positively and significantly mediates the relationship between entrepreneurial education and entrepreneurial passion ($\beta=0.130$; $t=2.210$; $p=0.000$),

hence, our H4 is accepted. However, H5 related to moderation effect of goal orientation in the relationship between entrepreneurial education and entrepreneurial passion. We found that goal orientation has positive effect between entrepreneurial education and entrepreneurial passion; consequently, H5 is also accepted.

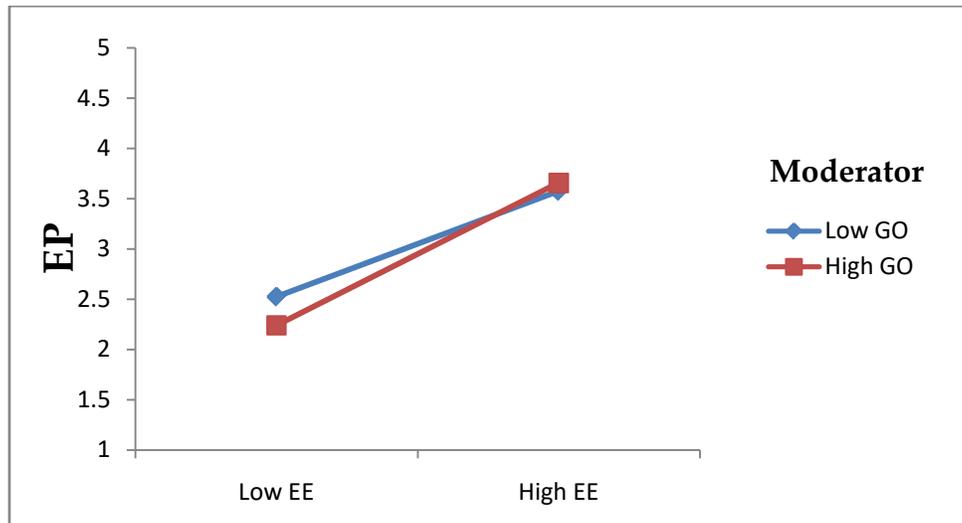


Figure 4. Moderating effect and interaction of GO and EE on EP

Similarly, Figure 4 shows the graphical interaction effect of how goal orientation (GO) moderates the effect between entrepreneurial education (EE) on entrepreneurial passion (EP). Jeremy Dawson method was used to calculate the high and low level of moderating effect of goal orientation. We have found that there was a positive association between EE and EP under high goal orientation rather than low goal orientation.

Discussion

The aim of this present study was to identify the effect of entrepreneurial education on entrepreneurial passion. However, previous studies acknowledged that education is the premium indicator for entrepreneurship as well as entrepreneurial passion. There is existing literature claimed that research on entrepreneurial education in Ghana still lacking to find out the relationship between entrepreneurial education and entrepreneurial passion. Therefore, our study examines the mediating role of perceived feasibility between entrepreneurial education and entrepreneurial passion which also needs in Ghana. Furthermore, our study result supports the predicted hypotheses (H1) that entrepreneurial education has positive and significant impact on entrepreneurial

passion. Precisely, it shows that education playing a vital role in the development of student's entrepreneurial passion. Education and passion both are related to development of entrepreneurial startup because if the students study entrepreneurship course in university or college level, it will develop a passion among them to start a new business venture in the future. Therefore, our results are in line with the prior researchers (Bae, Qian, Miao & Fiet, 2014; Lorz, Mueller & Volery, 2013; Souitaris, Zerbinati & Al-Laham, 2007).

Moreover, we have hypothesized H2 and H3 related to the entrepreneurial education, perceived feasibility and entrepreneurial passion. We have found that perceived feasibility is positively and significantly associated to entrepreneurial education and entrepreneurial passion. Perceived feasibility refers to entrepreneurial self-efficacy of individual's skills and abilities to accomplish the task and passion to become an entrepreneur. If the individuals have self-confidence and knowledge to find appropriate opportunities they could have better understanding to start a business. Thus, individuals with high level of entrepreneurial passion involved in the recognition of searching and scanning, information and association, judgment and evaluation might possess the influence in entrepreneurial business startup. Hence, our findings are consistent with the existing studies of previous researchers (Cardonet al., 2005, 2013; Murniekset al., 2014; Rauch and Frese 2007; Karimi et al. 2017).

However, our study further predicted that perceived feasibility mediates the relationship between entrepreneurial education and entrepreneurial passion. We have found that perceived feasibility has positive and significant mediation role between entrepreneurial education and entrepreneurial passion. Our results confirmed by the existing studies of prior scholars that perceived feasibility helpful to develop entrepreneurial education and passion to start a new business (Murnieks & Mosakowski, 2006; Cardon et al. 2009; Cope, 2005). Perceived feasibility create a sense of alertness and develop confidence in students to perform entrepreneurial tasks as well as influencing their entrepreneurial passion.

Furthermore, our study predicted the moderating effect of goal orientation between entrepreneurial education and entrepreneurial passion. We have found that goal orientation positively influence the relationship between entrepreneurial education and entrepreneurial passion. Results also revealed that if the students have high goal orientation they could get better entrepreneurial knowledge that develop an entrepreneurial passion to identify the available opportunities in market to start their

own business. Thus, our results are verified by the previous finding of (Stewart, 1999; McMullen, and Shepherd, 2006). At last, overall results of our study claimed that all the results were positive and significant.

Implications, limitations, future research and conclusion

The present study showed that entrepreneurial education enhances entrepreneurial passion among Ghanaian students in Sub-Saharan Africa. Results also showed that perceived feasibility is a major mechanism for entrepreneurial education and entrepreneurial passion. Our study has some practical implications; first, education sector of Ghana must develop entrepreneurial passion among students to start their own business and facilitate them with equipped infrastructure in the available space. Secondly, previous studies emphasized that theoretical courses enhanced the capabilities of students. Therefore, university did not focus on student knowledge at campus level, it must emphasis locally and globally to promote entrepreneurship education.

Second, findings suggest the need for entrepreneurship education to concentrate appropriately on developing student knowledge in venture growth, since the acquisition of entrepreneurship knowledge can inspire entrepreneurial actions by promoting the production of original and creative business ideas. Related to this, start-ups are usually motivated in the environment by certain opportunities. Therefore, building students capacity and skills to identify opportunities for entrepreneurship should be strongly emphasized in programs for entrepreneurship education at universities in Ghana as it has the potential to influence the intention of students to create ventures. Third, entrepreneurship education in our universities will introduce students to activities and practices that can increase their perceived level of self-employment viability. Finally, the findings urge policy makers and stakeholders in the education sector in Ghana to formulate policy guidelines for the design and teaching of entrepreneurship education programs by ensuring that content, pedagogy and delivery styles facilitate the acquisition of adequate entrepreneurial passion in the creation and management of start-ups and skills development to identify business opposition.

The study has limitations to the findings. First, the nature of our study was cross-sectional using primary data with the help of questionnaire. We have selected only one university for data collection because of limited resources and time constraints. Our study based on low sample size as well as we have used quantitative method data to

identify the relationship between variables. Therefore, future researchers can incorporate this study with longitudinal research design as well as using qualitative techniques, e.g. semi-structured interviews and group discussion. Further research can also take other dimensions of entrepreneurship e.g. alertness, creativity and entrepreneurial passion to measure these indicators on different samples.

Determined the unemployment rate increased in Ghana and the accompanying economic and social issues, stakeholders are embracing the concept of entrepreneurship and entrepreneurship education as a key driver in shaping the quality of human resources for full employment. Therefore, we have examined whether entrepreneurship education can influence the entrepreneurial passion while taking into account the perceived feasibility mediating role. The study concludes that entrepreneurship education affects a significant and positive entrepreneurial passion; show that when students are introduced to entrepreneurship education with the aim of equipping them with the skills and knowledge of entrepreneurial opportunity identification, they can develop a greater intention to engage in entrepreneurship. It also concluded that the perceived feasibility are the main mechanism that converts into a passion of entrepreneurship education in entrepreneurship and therefore require a greater emphasis on using entrepreneurship education as a means to instill confidence in the ability of students to become successful business owners.

List of Abbreviation

EE: Entrepreneurial Education

PF: Perceived Feasibility

EP: Entrepreneurial Passion

GO: Goal Orientation

References

Adekiya, A.A. and Ibrahim, F. (2016). "Entrepreneurship intention among students. The antecedent role of culture and entrepreneurship training and development", The International Journal of Management Education, Vol. 14, pp. 116-132.

- Ali, D.F. (2013). "The process of impact of entrepreneurship education and training on entrepreneurship perception and intention: Study of educational system of Iran", *Education +Training*, Vol. 55 Nos 8/9, pp. 868-885.
- Bae, T.J., Qian, S., Miao, C. and Fiet, J.C. (2014). "The relationship between entrepreneurship education and entrepreneurial intentions: a meta-analytic review", *Entrepreneurship Theory and Practice*, Vol. 38 No. 2, pp. 217-254.
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social & Clinical Psychology*, 4(3), 359–373.
- Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*, Freeman, New York, NY.
- Baron, R.A. (2004). "The cognitive perspective: a valuable tool for answering entrepreneurship's basic 'why' questions", *Journal of Business Venturing*, Vol. 19 No. 3, pp. 221-239.
- Biraglia, A., and V. Kadile (2017). "The Role of Entrepreneurial Passion and Creativity in Developing Entrepreneurial Intentions: Insights from American Homebrewers." *Journal of Small Business Management* 55 (1): 170–188.
- Cardon, M.S. and Kirk, C.P. (2015), "Entrepreneurial passion as mediator of self-efficacy to persistence relationship", *Entrepreneurship Theory and Practice*, Vol. 39 No. 5, pp. 1027-1050.
- Cardon, M.S., Gregoire, D., Stevens, C.E. and Patel, P.C. (2013). "Measuring entrepreneurial passion: conceptual development and scale validation", *Journal of Business Venturing*, Vol. 28 No. 3, pp. 373-396.
- Cardon, M.S., Wincent, J., Singh, J. and Drnovsek, M. (2009). "The nature and experience of entrepreneurial passion", *Academy of Management Review*, Vol. 34 No. 3, pp. 511-532.
- Cardon, M.S., Zietsma, C., Saporito, P., Matherne, B. and Davis, C. (2005). "A tale of passion: new insights into entrepreneurship from a parenthood metaphor", *Journal of Business Venturing*, Vol. 20 No. 1, pp. 23-45.

- Chen, X.-P., X. Yao, and S. Kotha (2009). "Entrepreneur Passion and Preparedness in Business Plan Presentations: A Persuasion Analysis of Venture Capitalists' Funding Decisions." *Academy of Management Journal* 52 (1): 199–214
- Cope, J. (2005). "Toward a dynamic learning perspective of entrepreneurship", *Entrepreneurship Theory and Practice*, Vol. 29 No. 4, pp. 373-397.
- DeTienne, D.R. and Chandler, G. (2004). "Opportunity identification and its role in the entrepreneurial classroom: a pedagogical approach and empirical test", *Academy of Management Learning & Education*, Vol. 3 No. 3, pp. 242-257.
- Drnovsek, M., Wincent, J. and Cardon, M.S. (2010). "Entrepreneurial self-efficacy and business start-up: developing a multi-dimensional definition", *International Journal of Entrepreneurial Behaviour & Research*, Vol. 16 No. 4, pp. 329-348.
- Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist*, 41, 1040–1048.
- Farr, J. F., Hofmann, D. A., & Ringenbach, K. L. (1993). Goal orientation and action control theory: Implications for industrial and organizational psychology. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (pp. 193-232). New York, NY: Wiley
- Fayolle, A., and B. Gailly (2008). "From Craft to Science: Teaching Models and Learning Processes in Entrepreneurship Education," *Journal of European Industrial Training* 32(7), 569–593.
- Gerba, D.T. (2012). "Impact of entrepreneurship education on entrepreneurial intentions of business and engineering students in Ethiopia", *African Journal of Economic and Management Studies*, Vol. 3 No. 2, pp. 258-277.
- Harris, M. L., and S. G. Gibson (2008). "Examining the Entrepreneurial Attitudes of US Business Students," *Education + Training* 50(7), 568–581.

- Hayton, J.C. and Cholakova, M. (2012). "The role of affect in the creation and intentional pursuit of entrepreneurial ideas", *Entrepreneurship Theory and Practice*, Vol. 36 No. 1, pp. 41-67.
- Karimi, S., H. J. A. Biemans, K. N. Mahdei, T. Lans, M. Chizari, and M. Mulder (2017). "Testing the Relationship between Personality Characteristics, Contextual Factors and Entrepreneurial Intentions in a Developing Country." *International Journal of Psychology* 52 (3): 227–240.
- Krejcie, R.V. and Morgan, D.W. (1970). "Determining sample size for research activities", *Educational and Psychological Measurement*, Vol. 30, pp. 607-610.
- Krueger, N.F. and Dickson, P.R. (1994), "How believing in ourselves increases risk taking: perceived self-efficacy and opportunity recognition", *Decision Sciences*, Vol. 25 No. 3, pp. 385-400.
- Linán, F. and Chen, Y.W. (2009). "Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions," *Entrepreneurship Theory and Practice*, Vol. 33 No. 3, pp. 593-617.
- Lorz, M., Müller, S. and Volery, T. (2011). "Entrepreneurship education: a meta-analysis of impact studies and applied methodologies", conference paper, FGF G-Forum, Zurich.
- Lorz, M., Müller, S. and Volery, T. (2013). "Entrepreneurship education: a systematic review of the methods in impact studies", *Journal of Enterprising Culture*, Vol. 21 No. 2, pp. 123-151.
- Martin, B. C., J. J. McNally, and M. J. Kay (2013). "Examining the Formation of Human Capital in Entrepreneurship: A Meta-Analysis of Entrepreneurship Education Outcomes," *Journal of Business Venturing* 28(2), 211– 224.
- Ajzen, I. (1985). *From intentions to actions: A theory of planned behavior*. In *Action control*. Berlin Heidelberg: Springer.

- McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, 31, 132–152.
- Miranda, F.J., Chamorro-Mera, A. and Rubio, S. (2017). "Academic entrepreneurship in Spanish universities: an analysis of the determinants of entrepreneurial intention", *European Research on Management and Business Economics*, Vol. 23 No. 2, pp. 113-122.
- Mueller, B. A., M. T. Wolfe, and I. Syed (2017). "Passion and Grit: An Exploration of the Pathways Leading to Venture Success." *Journal of Business Venturing* 32 (3): 260–279.
- Murnieks, C. Y., E. Mosakowski, and M. S. Cardon (2014). "Pathways of Passion: Identity Centrality, Passion, and Behavior among Entrepreneurs." *Journal of Management* 40 (6): 1583–1606
- Neck, H. and Greene, P. (2011). "Entrepreneurship education: known worlds and new frontiers", *Journal of Small Business Management*, Vol. 49 No. 1, pp. 55-70.
- Nichols, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review*, 91, 328–346.
- Oosterbeek, H., van Praag, M.C. and IJsselstein, A. (2010). "The impact entrepreneurship education on entrepreneurship skills and motivation", *European Economic Review*, Vol. 54, pp. 442-454.
- Pedrini, M., Langella, V. and Molteni, M. (2017). "Do entrepreneurial education programs impact the antecedents of entrepreneurial intention? An analysis of an entrepreneurship MBA in Ghana", *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 11 No. 3, pp. 373-392.
- Pham, M. T., & Avnet, T. (2004). Ideals and oughts and the reliance on affect versus substance in persuasion. *Journal of Consumer Research*, 30(4), 503–518.

- Philippe, F. L., R. J. Vallerand, N. Houliort, G. L. Lavigne, and E. G. Donahue (2010). "Passion for an Activity and Quality of Interpersonal Relationships: The Mediating Role of Emotions." *Journal of Personality and Social Psychology* 98 (6): 917.
- Rauch, A., Wiklund, J., Lumpkin, G.T. and Frese, M. (2009). "Entrepreneurial orientation and business performance: an assessment of past research and suggestions for the future", *Entrepreneurship Theory and Practice*, Vol. 33 No. 3, pp. 761-787.
- Shane, S., and S. Venkataraman (2000). "The Promise of Entrepreneurship as a Field of Research," *Academy of Management Review* 25, 217-226.
- Shane, S., Locke, E.A. and Collins, C.J. (2003), "Entrepreneurial motivation", *Human Resource Management Review*, Vol. 13 No. 2, pp. 257-279.
- Souitaris, V., Zerbinati, S. and Al-Laham, A. (2007). "Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources", *Journal of Business Venturing*, Vol. 22 No. 4, pp. 566-591.
- Stewart, W. H., Watson, W., Carland, J. C., & Carland, J. W. (1999). A proclivity for entrepreneurship: A comparison of entrepreneurs, small business owners, and corporate managers. *Journal of Business Venturing*, 14, 189-214.
- Vallerand, R. J., G. A. Céline Blanchard, R. K. Mageau, C. Ratelle, M. Léonard, M. Gagné, and J. Marsolais (2003). "Les Passions De L'ame: On Obsessive and Harmonious Passion." *Journal of Personality and Social Psychology* 85 (4): 756.
- VandeWalle, D. (1997). Development and validation of a work domain goal orientation instrument. *Educational and Psychological Measurement*, 57, 995-1015.
- Young, J. E., & Sexton, D. L. (1997). Entrepreneurial learning: A conceptual framework. *Journal of Enterprising Culture*, 5(03), 223-248.

Zakaria, H., Adam, H. and Abujaja, A.M. (2014), "Assessment of agricultural students of university for development studies intention to take up self-employment in agribusiness", International Journal of Information Technology and Business Management, Vol. 21 No. 1, pp. 53-67.

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